Appendix A-10: XML Schema: Pediatric Asthma Measures (CAC-1 and CAC-2)

XML Element	Attributes	Description	Data Element	Valid Values	Data Types	Field Size	Data Required (MassHealth)
A header is required at the beginning of each XML file as follows: <?xml version="1.0" encoding="UTF-8" ?>							
<submission>	Opening tag is required.						
	type	Describes the setting for which data is being submitted.	N/A	HOSPITAL	Character	20	Yes
	data	Describes the type of data being submitted.	N/A	CLINICAL	Character	20	Yes
	version	The version of the file layout.	N/A	1.0	Character	20	Yes
	action-code	Describes the intended action of the file being submitted.	N/A	ADD	Character	20	Yes
<file-audit-data> sub-element of the submission data element	Opening tag for file audit data	**Note**: This tag and the entire <file-audit-data> section are optional in the XML document. If submitted, this tag contains no data. Required if sub-elements are included.					
<create-date> sub-element of the file audit data element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data: <create-date>**05-10-2007**</create-date>**						
	None	The month, day, and year the XML file was created	N/A	MM-DD-YYYY (Must be a valid date)	Date	10	Yes
<create-time> sub-element of the file audit data element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data: <create-time>**23:01**</create-time>**						
	None	The hour and minutes representing the time the file was created	N/A	HH:MM (military format with or without colon)	Time	5	Yes
<create-by> sub-element of the file audit data element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data: <create-by>**VendorA**</create-by>**						
	None	The entity that created the file	N/A		Character	50	Yes
<version> sub-element of the file audit data element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data: <version>**1.0**</version>**						
	None	The version of the file being submitted	N/A		Character	20	Yes
<create-by-tool> sub-element of the file audit data element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data**: **<create-by-tool>**CART4.1**</create-by-tool>**						
	None	Tool used to create the XML file	N/A		Character	50	Yes
</file-audit-data>	Closing tag for file audit data	**Note**: This tag and the entire <file-audit-data> section are optional in the XML document, but if the opening tag of <file-audit-data> is provided, then this closing tag is required as well.					
<provider> Sub-element of the submission data element	Opening tag for provider	**Note**: This tag is required in the XML document. However, it contains no data.					

XML Element	Attributes	Description	Data Element	Valid Values	Data Types	Field Size	Data Required (MassHealth)
<provider-id> sub-element of the provider element		Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<provider-id>**123456**</provider-id>**					
	None	**Used to identify the provider. This will be either a valid Medicare or Medicaid provider ID and must match the Provider ID used in the clinical measure submission.**	Provider ID	**Valid 6 or 7 digit id**	Character	**7**	Yes
<npi> sub-element of the provider element		Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<npi>**1234567890**</npi>**					
	None	National Provider Identifier as assigned by CMS	National Provider Identifier (NPI)	Valid 10 digit NPI Number	Character	10	No
<hcoid> sub-element of the provider element		Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<hcoid>**123456**</hcoid>**					
	None	Used to identify the healthcare organization	Health Care Organization Identifier	See ORYX Technical Implementation Guide	See ORYX Technical Implementation Guide	See ORYX Technical Implementation Guide	No
<patient> sub-element of the provider element	Opening tag for patient	**Note**: This tag is required in the XML document. However, it contains no data.					
<first-name> sub-element of the patient element		Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<first-name>**John**</first-name>**					
	None	The patient's first name	First Name	Patient's First Name	Character	30	Yes
<last-name> sub-element of the patient element		Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<last-name>**Doe**</last-name>**					
	None	The patient's last name	Last Name	Patient's Last Name	Character	60	Yes
<birthdate> sub-element of the patient element		Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<birthdate>**08-06-1964**</birthdate>**					
	None	The month, day, and year the patient was born	Birthdate	MM-DD-YYYY (Must be a valid birthdate and cannot equal UTD)	Date	10	Yes
<sex> sub-element of the patient element		Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<sex>**M**</sex>**					
	None	The patient's sex	Sex	M,F,U	Character	1	Yes
<race> sub-element of the patient element		Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<race>**1**</race>**					
	None	Documentation of the patient's race	Race	1,2,3,4,5,7	Numeric	1	Yes

XML Element	Attributes	Description	Data Element	Valid Values	Data Types	Field Size	Data Required (MassHealth)
\<ethnic\> sub-element of the patient element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **\<ethnic\>**Y**\</ethnic\>**						
	None	Documentation that the patient is Hispanic/Latino/Spanish	Hispanic Indicator	Y,N	Character	1	Yes
\<postal-code\> sub-element of the patient element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **\<postal-code\>**50266**\</postal-code\>**						
	None	The postal code of the patient's residence. For USA zip codes, the hyphen is implied. If the patient is determined to not have a permanent residence, then the patient is considered homeless.	Postal Code	(5 or 9 digit without hyphen, "HOMELESS", or Non-US)	Character	9	Yes
\<episode-of-care\> sub-element of the patient element	Opening tag for episode of care	**Example with data:** **\<episode-of-care measure-set ="CAC-1a"\>**					
	measure-set	The code for the measure set submitted.	Measure set	CAC-1a CAC-2a	Character	22	Yes
\<admit-date\> sub-element of the episode-of-care element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **\<admit-date\>**04-02-2007**\</admit-date\>**						
	None	The month, day, and year of admission for inpatient care	Admission Date	MM-DD-YYYY (Must be a valid date and cannot equal UTD)	Date	10	Yes
\<discharge-date\> sub-element of the episode-of-care element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **\<discharge-date\>**04-06-2007**\</discharge-date\>**						
	None	The month, day, and year the patient was discharged from acute care, left against medical advice, or expired during this stay.	Discharge Date	MM-DD-YYYY (Must be a valid date and cannot equal UTD)	Date	10	Yes
\<pthic\> sub-element of the episode-of-care element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data**: **\<pthic\>**123456789A**\</pthic\>**						
	None	HIC# of the patient The patient's Medicare health insurance claim number.	Patient HIC#	· No embedded dashes or spaces or special characters · Must have both alpha and numeric characters · Alpha characters must be upper case · Length cannot be more than 12 or less than 7 characters · For alphanumeric, do not allow all numeric values to be 9's. For example, do not allow 1 alpha + 999999999, etc.	Character	7-12	No

XML Element	Attributes	Description	Data Element	Valid Values	Data Types	Field Size	Data Required (MassHealth)
<vendor-tracking-id> sub-element of the episode-of-care element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<vendor-tracking-id>**123456789012**</vendor-tracking-id>**						
	None	Used by the vendor to identify the episode of care	Vendor Tracking ID	Up to 100 characters	Character	Up to 100	No
<hospital-patient-id> sub-element of the episode-of-care element	Each element must have a closing tag that is the same as the opening tag but with a forward slash. **Example with data:** **<hospital-patient-id>**74185296374185296385**</hospital-patient-id>**						
	None	Identifier used to identify the patient at the hospital	Hospital Patient Identifier	Up to 40 characters	Character	Up to 40	Yes
<detail> sub-element of the episode-of-care element	Since this is the opening element, the closing tag for this element will be at the end of the record. Attributes describe the element and are included within the opening and closing <> **Example of Yes/No question (refer to Table A for valid answer codes):** For discharges 4/1/2007 and forward: **<detai**l answer-code="Y" row-number="0" question-cd="ASPRNRXDIS"> **Example of multiple choice question (refer to Table A for valid answer codes):** <detail answer-code="3" row-number="0" question-cd="ANTIBIRCVD"> **Example of a user-entered code:** <detail answer-code="001.9" row-number="0" question-cd="OTHRDX#">						
	answer-code	ID number of the answer	Not a data element itself; each possible answer has its own unique ID	Refer to Table A for valid values	Character	20	Yes
	question-cd	The field name of the question	Not a data element itself; each data element is a question code	Refer to Table A for valid values	Character	20	Yes
	row-number	Used to group answers together for multi-row, multi-column answers	Not a data element itself; used for grouping answers only	0-75 Depending on the number of rows allowed per question. i.e. Antibiotic Name, Date, Time and Route would have rownumber 0 for the first antibiotic, 1 for the second antibiotic, and so on.	Integer	2	Yes Default to 0. For mulitiple answer options, add 1 to the row number for each additional answer
<answer-value> Sub-element of detail	The answer value **Example:** <answer-value>No</answer-value>	The description of the answer-code	Not a data element itself; each answer has a value	Place the answer text here. Examples: Yes No Male Female 01-01-2006 **Note: All Dates in this field should be formatted as MM-DD-YYYY**	Character	2000	No
</detail>	Closing tag for detail	**Note:** This tag is required in the XML document. However, it contains no data.					

XML Element	Attributes	Description	Data Element	Valid Values	Data Types	Field Size	Data Required (MassHealth)
</episode-of-care>	Closing tag for episode of care	**Note:** This tag is required in the XML document. However, it contains no data.					
</patient>	Closing tag for patient	**Note:** This tag is required in the XML document. However, it contains no data.					
</provider>	Closing tag for provider	**Note:** This tag is required in the XML document. However, it contains no data.					
</submission>	Closing tag for submission	**Note:** This tag is required in the XML document. However, it contains no data.					

Question	Question / Field Name	Data Type	Lengh	Occurrence	Answer Code	Answer Value	Applicable Measure(s)
Point of Origin for Admission or Visit	ADMSNSRC	Alpha	1	1	1	**1 Non-Health Care Facility Point of Origin**	All Records
					2	2 Clinic	
					4	4 Transfer From a Hospital (Different Facility)	
					5	5 Transfer from a Skilled Nursing Facility **(SNF) or Intermediate Care Facility (ICF)**	
					6	6 Transfer from another Health Care Facility	
					7	7 Emergency Room	
					8	8 Court/Law Enforcement	
					9	9 Information Not Available	
					D	**D Transfer from One Distinct Unit of the Hospital to another Distinct Unit of the Same Hospital Resulting in a Separate Claim to the Payer**	
					E	**E Transfer from Ambulatory Surgery Center**	
					F	**F Transfer from Hospice and is Under a Hospice Plan of Care or Enrolled in a Hospice Program**	
Is the patient participating in a clinical trial?	CLNCLTRIAL	Alpha	1	1	Y	Yes	All Records
					N	No	
Discharge Status	DISCHGSTAT	Alpha	2	1	01	01-Discharged to home care or self care (routine discharge)	All Records
					02	02-Discharged/transferred to a short term general hospital for inpatient care	
					03	03-Discharged/transferred to skilled nursing facility (SNF) with Medicare certification in anticipation of covered skilled care	
					04	04-Discharged/transferred to an intermediate care facility (ICF)	
					05	**05 Discharged/transferred to a Designated Cancer Center or Children's Hospital**	
					06	06-Discharged/transferred to home under care of organized home health service organization in anticipation of covered skilled care	
					07	07-Left against medical advice or discontinued care	
					20	20-Expired	
					41	41 Expired in a medical facility (e.g., hospital, SNF, ICF or freestanding **hospice**)	
					43	43-Discharged/ transferred to a federal health care facility	
					50	50-Hospice - home	
					51	51-Hospice - medical facility	
					61	61-Discharged/transferred to hospital-based Medicare approved swing bed	
					62	62-Discharged/transferred to inpatient rehabilitation facility (IRF) including rehabilitation distinct part units of a hospital	
					63	63-Discharged/transferred to a Medicare certified long term care hospital (LTCH)	
					64	64-Discharged/transferred to a nursing facility certified under Medicaid but not certified under Medicare	
					65	65-Discharged/transferred to a psychiatric hospital or psychiatric distinct part unit of a hospital	
					66	66 - Discharged/transferred to a Critical Access Hospital (CAH)	
					70	**70 Discharged/transferred to another Type of Health Care Institution not Defined Elsewhere in this Code List (See Code 05)**	
ICD-9-CM Other Diagnosis Codes	OTHRDX#	Alpha	6	17	ICD-9-CM Diagnosis code, with or without decimal	ICD-9-CM Diagnosis code, with or without decimal. Allows up to 17 rows	All Records with more than one Diagnosis Code

Question	Question / Field Name	Data Type	Lengh	Occurrence	Answer Code	Answer Value	Applicable Measure(s)
ICD-9-CM Other Procedure Codes	OTHRPX#	Alpha	5	5	ICD-9-CM Procedure code, with or without decimal	ICD-9-CM Procedure code, with or without decimal. Allows up to 5 rows	All Records with more than one Procedure Code
ICD-9-CM Other Procedure Dates	OTHRPX#DT	Date	10	5	User Entered (MM-DD-YYYY)	User Entered (MM-DD-YYYY). Allows up to 5 rows	All Records with more than one Procedure Code
ICD-9-CM Principal Diagnosis Code	PRINDX	Alpha	6	1	ICD-9-CM Diagnosis code, with or without decimal	ICD-9-CM Diagnosis code, with or without decimal	All Records
ICD-9-CM Principal Procedure Code	PRINPX	Alpha	5	1	ICD-9-CM Procedure code, with or without decimal	ICD-9-CM Procedure code, with or without decimal	All records with a principal procedure
ICD-9-CM Principal Procedure Date	PRINPXDATE	Date	10	1	User Entered (MM-DD-YYYY)	User Entered (MM-DD-YYYY). All records with a principal	All records with a principal procedure
Physician 1	PHYSICIAN_1	Alpha	50	1	User Entered	User Entered	Optional
Physician 2	PHYSICIAN_2	Alpha	50	1	User Entered	User Entered	Optional
Provider Name	PROVNAME	Alpha	60	1	User Entered	User Entered	All Records
MH Race	MHRACE	Alpha	2-6	1	R1	American Indian or Alaska Native	All Records
					R2	Asian	
					R3	Black/African American	
					R4	Native Hawaiian or Pacific Islander	
					R5	White	
					R9	Other Race	
					UNKNOW	Unknown	
Ethnicity code	ETHNICCODE	Alpha	6	1	Alpha 6 characters or numeric is 5 numbers with a hyphen after the 4th number (####-#) (see Table B)	Alpha 6 characters or numeric is 5 numbers with a hyphen after the 4th number (####-#) (see Table B)	All Records
Hospital Billing Number	HOSPBILL#	Alpha	20	1	Hospital internal billing number. This is a required field.	Hospital internal billing number. This is a required field.	All Records
What is the Medicaid & Medicaid Managed Care Payer Source?	PMTSRCE	Alpha	3	1	103	103-Medicaid (includes MassHealth)	All Records
					104	104-Medicaid Managed Care - Primary Clinicians (PCC)	
What is the patient's MassHealth Recipient ID number?	MHRIDNO	Alpha	10	1	All alpha characters must be upper case	All alpha characters must be upper case	CAC-1a, CAC-2a
What is the patient's Social Security number?	SOCSEC#	Alpha	9	1	No dashes	No dashes	CAC-1a, CAC-2a
What is the unique measurement system-generated number that identifies this episode of care?	CID	Numeric	9	1	User entered	Value greater than (0) assigned by the system	CAC-1a, CAC-2a
Does this case represent part of a sample?	SAMPLE	Alpha	1	1	Y	Yes	Required minimum demographic
					N	No	
Was there an ICD-9-CM Principle Diagnosis Code of Asthma?	PRINDXASTHMA	Alpha	1	1	Y	Yes	CAC-1a, CAC-2a
					N	No	
At the time of discharge was the patient's age 2 years through 17 years?	DISCHARGEAGE	Alpha	1	1	Y	Yes	CAC-1a, CAC-2a
					N	No	

Question	Question / Field Name	Data Type	Lengh	Occurrence	Answer Code	Answer Value	Applicable Measure(s)
Is there documentation of contraindications/reasons for prescribing relievers during this hospitalization?	CTRRELIEVERS	Alpha	1	1	Y	Yes	CAC-1a
					N	No	
Did the patient receive a reliever medication(s) during this hospitalization?	RELIEVERSADM	Alpha	1	1	Y	Yes	CAC-1a
					N	No	
Is there documentation of contraindications/reasons for not prescribing oral or intravenous corticosteroids during this hospitalization?	CTRSYSCORTSTR	Alpha	1	1	Y	Yes	CAC-2a
					N	No	
Did the patient receive oral intravenous corticosteroids during this hospitalization?	SYSCORTSTRADM	Alpha	1	1	Y	Yes	CAC-2a
					N	No	

Table B for CAC-1 and CAC-2 Measures

Question	Field Name	Valid Values	Value Descriptions
MH Race	MHRACE	R1	American Indian or Alaska Native
		R2	Asian
		R3	Black/African American
		R4	Native Hawaiian or Pacific Islander
		R5	White
		R9	Other Race
		UNKNOW	Unknown
Ethnicity Code	ETHNICCODE	2182-4	Cuban
		2184-0	Dominican
		2148-5	Mexican, Mexican American, Chicano
		2180-8	Puerto Rican
		2161-8	Salvadoran
		2155-0	Central American (not specified)
		2165-9	South American (not specified)
		2060-2	African
		2058-6	African American
		AMERCN	American
		2028-9	Asian
		2029-7	Asian Indian
		BRAZIL	Brazilian
		2033-9	Cambodian
		CVERDN	Cape Verdean
		CARIBI	Caribbean Island
		2034-7	Chinese
		2169-1	Columbian
		2108-9	European
		2036-2	Filipino
		2157-6	Guatemalan
		2071-9	Haitian
		2158-4	Honduran
		2039-6	Japanese
		2040-4	Korean
		2041-2	Laotian
		2118-8	Middle Eastern
		PORTUG	Portuguese
		RUSSIA	Russian
		EASTEU	Eastern European
		2047-9	Vietnamese
		OTHER	Other Ethnicity
		UNKNOW	Unknown / not specified